

WHAT IS CLAIMED IS:

1. A sensor system comprising:
  - a light emitting device configured to emit light;
  - a first securement device attached to the light emitting device;
  - a detector configured to detect the light received from the light emitting device and generate a current based on the amount of light detected;
  - a second securement device attached to the detector; and
  - an adjustable band having a first end connected to the first securement device and a second end connected to the second securement device, the band configured to align the light emitting device and the detector.
2. The sensor system of claim 1 wherein the adjustable band is a two piece adjustable band, a first piece of the adjustable band having means for attaching to a second piece of the adjustable band.
3. The sensor system of claim 1 wherein the adjustable band has a first piece having a plurality of pegs and a second piece having a plurality of openings, the plurality of pegs configured to be removably attached to the plurality of openings to allow the adjustable band to be increased and decreased in size.
4. The sensor system of claim 1 further comprising an extender having a first end attached to the first securement device and a second end free from attachment and configured to be wrapped around the adjustable band.
5. The sensor system of claim 1 further comprising a first button attached to the first securement device and a second button attached to the second securement device.
6. The sensor system of claim 5 further comprising a wrap having at least two openings, the first opening configured to attach to the first button and the second opening configured to attach to the second button.
7. A device for connecting a light emitting device and a detector, the device comprising:
  - a first securement device attached to the light emitting device;
  - a second securement device attached to the detector; and

a band having a first end connected to the first securement device and a second end connected to the second securement device, the band configured to align the light emitting device with the detector.

8. The device of claim 7 further comprising an extender having a first end attached to the first securement device and a second end free from attachment and configured to be wrapped around the band.

9. The device of claim 8 wherein the band has a first length and the extender has a second length, the second length being greater than the first length.

10. The device of claim 7 further comprising a first button attached to the first securement device and a second button attached to the second securement device.

11. The device of claim 10 further comprising a wrap having at least two openings, the first opening configured to attach to the first button and the second opening configured to attach to the second button.

12. The device of claim 7 wherein the first end of the band is detachable from the first securement device.

13. The device of claim 7 wherein the second end of the band is detachable from the second securement device.

14. The device of claim 7 wherein the band is perforated at the first and second ends for removal of the band.

15. The device of claim 7 wherein the band has a perforation that is located in a middle section of the band.

16. A sensor system comprising:

a light emitting device configured to emit light;

a detector configured to detect the light and generate a current based on the amount of light detected; and

a two-piece adjustable band having a first end configured to be connected to the light emitting device and a second end configured to be connected to the detector.

17. The device of claim 16 further comprising an extender having a first end attached to the first securement device and a second end free from attachment and configured to be wrapped around the adjustable band.

18. The device of claim 16 further comprising a first button attached to the first securement device and a second button attached to the second securement device.

19. The device of claim 18 further comprising a wrap having at least two openings, the first opening configured to attach to the first button and the second opening configured to attach to the second button.

20. The sensor system of claim 16 wherein the first end of the band is configured to be attached to and detached from the second end of the band.

21. The sensor system of claim 16 wherein the two-piece adjustable band has a first piece having a plurality of pegs and a second piece having a plurality of openings, the plurality of pegs configured to be removably attached to the plurality of openings to allow the adjustable band to be increased and decreased in size.